



DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
WASHINGTON, D.C. 20350

W/CHs

IN REPLY REFER TO
OPNAVINST 2400.24A
Op-941F

04 NOV 1980

OPNAV INSTRUCTION 2400.24A

Subj: Maritime mobile VHF radiotelephone services in the
156-162 MHz Band; provisions for U. S. Navy use of

Encl: (1) U. S. National Maritime Mobile VHF, 156-162 MHz
Channelization Plan
(2) International Maritime Mobile VHF, 156-162 MHz
Channelization Plan

1. Purpose. To promulgate information on the use of
maritime mobile VHF radiotelephone services in the 156-162
MHz band by vessels of the U. S. Navy.

2. Cancellation. OPNAVINST 2400.24.

3. Background

a. The band 156-162 MHz is allocated primarily, both
nationally and internationally, to provide for short range
telephonic communication requirements among commercial and
other civil ships and coastal stations, for safety in
coastal transit, harbor operations, and private ship move-
ment control. The U. S. Coast Guard also uses certain chan-
nels in the band for operations in connection with its
Vessel Traffic System (VTS) service, general communications
with the public, and for search and rescue and other ship
safety operations, as discussed below.

b. New modes of communication, other than telephony,
are being introduced into the band, and include facsimile,
direct dial telephony, data, and digital selective
calling. However, U. S. Navy use of the band at this time
is limited to telephony.

4. Frequencies. National and international basic
channelization plans, uses, and restrictions, for fre-
quencies in the 156-162 MHz band, are set forth in enclo-
sures (1) and (2) respectively. The national plan differs
in some instances from the international plan, and U. S.

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channelized ships should use only international channels when communications with foreign ships and stations are attempted.

5. USN Equipment Capabilities

a. All U. S. commissioned Navy surface ships are equipped with the AN/URC-80(V) 55 channel (plus a Channel 13 guard receiver) radio transceiver, and can transmit and receive all U. S. channels, plus international Channels 1 through 5 and 60 through 64.

R) b. U. S. Navy submarines are equipped with two each, 4 channel AN/PRC-94(V2) transceivers. Channelization shall be as follows:

R) Mandatory: CH 13 156.65 MHz
 CH 16 156.80 MHz

A) Remainder: As designated by Fleet Commanders

6. Guard Requirements and Procedures

a. National

(1) Pursuant to the "Vessel Bridge-to-Bridge Radiotelephone Act", Navy vessels are required, while underway, to maintain a radiotelephone guard on the navigational communication frequency, 156.65 MHz (CH 13) or 156.375 MHz (CH 67) as delineated below, and to be capable of radiotelephone operation from their navigational bridges. Channel 13 (156.65 MHz) is designated the navigational communication frequency, except for a limited area of the southern Louisiana section of the Mississippi River system, within the boundary lines set forth in Title 46 of the Code of Federal Regulations and published in the U. S. Coast Guard Publication "Navigation Rules: International-Island," CG-169 dated May 1, 1977. The Boundary Lines published in CG-169 are still applicable for purposes of the "Vessel Bridge-to-Bridge Radiotelephone Act," even though those lines have been changed in CG 169-1 for purpose of separating the areas where the International and Inland Rules of the Road apply. Channel 67 (156.375 MHz) is designated the "Navigational Communication Frequency" in the Mississippi River from South Pass Lighted Whistle Buoy "2" and Southwest Pass Entrance Midchannel Whistle Buoy to Mile 242.2 AHP (above Head of Passes) near Baton Rouge; and

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in addition, the Mississippi River - Gulf Outlet Canal and the inner Harbor Navigational Canal. The navigational communication frequency use is limited to such cases as in meeting and passing situations. Abbreviated procedures (call signs omitted) will be used; e.g., "SS TURIN BAY, this is U.S. Navy Aircraft Carrier 61 - I am entering South Channel and intend to remain astern of you."

(2) Pursuant to the Ports and Waterways Act, Navy vessels are authorized the use of VTS Channels 11, 12, 14, and 20 while in, entering, or leaving U.S. ports in which the U. S. Coast Guard has installed VTS. Guard on Channel 13 must be continued. Hence, submarines must activate two equipments. If the VTS frequency for the port concerned is not known, the Coast Guard should be contacted on Channel 16 for instructions. Ports now having or expected to soon have VTS are Puget Sound, San Francisco, Houston/Galveston, New Orleans, New York, and Valdez, Alaska. (Other countries are also implementing VTS type systems).

(3) It is U.S. national policy that Government ships, during their hours of service for radiotelephony in this band (156-162 MHz), shall maintain a watch for reception on 156.8 MHz, whenever practicable. Thus, a listening watch by Navy vessels on Channel 16 (156.8 MHz) is necessary only if the VHF radiotelephone system is otherwise in use, and then only if such listening watch is practicable (i.e., if equipment usage permits).

(4) The frequency 156.3 MHz (Channel 6) may be used by mobile stations, and by land stations directly associated with such mobile stations, for search and rescue (SAR) communications at the scene of a SAR incident. When control of the scene of a SAR incident is under a Coast Guard Station, Channel 6 may be used by ship stations to communicate with that coast station. Navy land station use of Channel 6 is not authorized.

b. International. Currently, there is no legal requirement for U. S. Navy Vessels to guard VHF telephone channels in international waters, or in foreign ports (except as directed by the national port authority concerned). However, use of appropriate channels from enclosure (2) should facilitate necessary communications with merchant vessels, harbor support vessels, and port

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authorities. Channel 16 (156.8 MHz) should be used for establishing communications with both ship and shore stations. A shift to a working channel (Channel 6 is preferred for intership communications), as designated by port authority for harbor communications, is required for all further communications other than distress.

7. Action.

a. U. S. Navy vessels shall maintain a guard on VHF maritime mobile Channel 13 (156.65 MHz) or Channel 67 (156.375 MHz) (see paragraph 6a.) when underway within the Boundary Lines applicable to the Vessel Bridge-to-Bridge Radiotelephone Act. (R)

b. U. S. Navy vessels are authorized to transmit on the frequencies in the enclosures, subject to the limitations noted therein. (R)

c. All Navy shore stations and facilities shall have an authorized frequency assignment for the use of any VHF maritime mobile channel. (R)



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U.S. NATIONAL MARITIME MOBILE VHF, 156-162 MHz CHANNELIZATION PLAN

(FREQ'S IN MHz)
SHIP)

<u>CHANNEL NUMBER</u>	<u>TRANSMITTER</u>	<u>RECEIVER</u>	<u>USAGE</u>
5	156.250	156.250	Port Operations (Inter-ship and ship-to-coast). Same as Channel 12, except authorized for use in the VTS protected areas of New Orleans and Houston only.
6	156.300	156.300	Inter-ship safety purposes and SAR communications with ship and aircraft of the U.S. Coast Guard. Must not be used for non-safety communications.
7A	156.350	156.350	Commercial (Inter-ship and ship-to coast). A working channel for commercial vessels.
8	156.400	156.400	Commercial (Inter-ship). Same as Channel 7A except limited to inter-ship communications.
9	156.450	156.450	Commercial and non- commercial (Inter-ship and ship-to-coast) e.g., Communications with commercial marinas and public

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U.S. NATIONAL MARITIME MOBILE VHF,
156-162 MHz CHANNELIZATION PLAN(FREQ'S In MHz)
SHIP

<u>CHANNEL NUMBER</u>	<u>TRANSMITTER</u>	<u>RECEIVER</u>	<u>USAGE</u>
			docks to obtain supplies, etc.
10	156.500	156.500	Commercial (Intership and ship-to-coast) Same Channel 7A.
11	156.550	156.550	Commercial (Intership and ship-to-coast). Same as Channel 7A plus USCG Vessel Traffic Service (VTS). (See Foot- note).
12	156.600	156.600	Port Operations (Intership) and ship- to-coast). Available to all vessels. A traffic advisory channel for use by agencies in directing movements of vessels in or near ports, locks, or waterways. Also used by USCG for Vessel Traffic Service. (See foot- note).
13	156.650	156.650	Navigational (Ship's) Bridge-to-(Ship's) Bridge. Required of all vessels on navigable waters of the U.S. Limited to navigational

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U.S. NATIONAL MARITIME MOBILE VHF,
156-162 MHz CHANNELIZATION PLAN(FREQ'S IN MHz)
SHIP)

<u>CHANNEL NUMBER</u>	<u>TRANSMITTER</u>	<u>RECEIVER</u>	<u>USAGE</u>
			communications such as in meeting and passing situations.
14	156.700	156.700	Port Operations and VTS (Intership and ship-to-coast). Same as Channel 12. (See footnote).
15		156.750	Environmental (receiver only). Used to broadcast environmental information to ships, such as weather, sea conditions, time signals, notices to mariners, etc.
16	156.800	156.800	Distress, Safety, and Calling (Intership and ship-to-coast). Guarded by all commercial and private VHF equipped vessels. Monitored by USCG, public coast stations, and many limited coast stations. Calls to other vessels are normally initiated on this channel and, except in an emergency, switched to a working channel.

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U.S. NATIONAL MARITIME MOBILE VHF,
156-162 MHz CHANNELIZATION PLAN(FREQ'S In MHz)
SHIP

<u>CHANNEL NUMBER</u>	<u>TRANSMITTER</u>	<u>RECEIVER</u>	<u>USAGE</u>
17	156.850	156.850	State Control. Available to all vessels to communicate with ships and coast stations operated by state and local governments. Messages are restricted to regulation and control, or rendering assistance.
18A	156.900	156.900	Commercial (Intership and ship-to-coast). Same as Channel 7A.
19A	156.950	156.950	Commercial (Intership and ship-to-coast). Same as Channel 7A.
20	157.000	161.000	Port Operations (ship- to-coast). Available to all vessels. A traffic advisory channel for use by agencies directing the movement of vessels in or near ports, locks, or waterways. Messages restricted to the operational handling, movement and safety of ships and, in an emergency, to the

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156-162 MHz CHANNELIZATION PLAN(FREQ'S IN MHz)
SHIP)

<u>CHANNEL NUMBER</u>	<u>TRANSMITTER</u>	<u>RECEIVER</u>	<u>USAGE</u>
			safety of persons.
21A	157.050	157.050	U.S. Government only (USCG).
22A	157.100	157.100	Coast Guard Liaison. Used for communications with U.S. Coast Guard ship, coast and air- craft stations after first establishing communications on Channel 16. Navigational warnings and marine weather forecasts are made on this frequency.
23A	157.150	157.150	U.S. Government only (USCG).
24	157.200	161.800	Public Correspondence (ship-to-coast). Available to all vessels to communicate with public coast stations. (Channels 26 and 28 are the primary public correspondence channels).
25	157.250	161.850	Public Correspondence (ship-to-coast). Same as Channel 24.

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156-162 MHz CHANNELIZATION PLAN(FREQ'S In MHz)
SHIP

<u>CHANNEL NUMBER</u>	<u>TRANSMITTER</u>	<u>RECEIVER</u>	<u>USAGE</u>
26	157.300	161.900	Public Correspondence (ship-to-coast). Same as Channel 24.
27	157.350	161.500	Public Correspondence (ship-to-coast). Same as Channel 24.
28	157.400	162.000	Public Correspondence (ship-to-coast). Same as Channel 24.

NOTE: In specific port areas where Channels 11, 12, and/or 14 are used for USCG Vessel Traffic Service (VTS) operations, these channels are dedicated to exclusive VTS use.

65A	156.275	156.275	Port Operations (Inter-ship and ship- to-coast). Same as Channel 12.
66A	156.325	156.325	Port Operations (Inter-ship and ship- to-coast). Same as Channel 12.
67	156.375	156.375	Commercial (Inter- ship). Same as Channel 7A except limited to intership communications. Bridge-to-bridge use in the southern Mississippi River (see para. 6a.)

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U.S. NATIONAL MARITIME MOBILE VHF,
156-162 MHz CHANNELIZATION PLAN(FREQ'S IN MHz)
SHIP)

<u>CHANNEL NUMBER</u>	<u>TRANSMITTER</u>	<u>RECEIVER</u>	<u>USAGE</u>
68	156.425	156.425	Non-commercial (Inter-ship and ship-to-coast). A working channel for non-commercial (private) vessels. Used for obtaining supplies, scheduling repairs, berthing, and accommodations, etc., from yacht clubs or marinas.
69	156.475	156.475	Non-commercial (Inter-ship and ship-to-coast). Same as Channel 68.
70	156.525	156.525	Non-commercial (Inter-ship). Same as Channel 68 except limited to intership communications.
71	156.575	156.525	Non-commercial (Inter-ship and ship-to-coast). Same as Channel 68.
72	156.625	156.625	Non-commercial (inter-ship). Same as Channel 68 except limited to intership communications.
73	156.675	156.675	Port Operations (Inter-ship and ship-to-coast). Same as

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U.S. NATIONAL MARITIME MOBILE VHF,
156-162 MHz CHANNELIZATION PLAN(FREQ'S In MHz)
SHIP

<u>CHANNEL NUMBER</u>	<u>TRANSMITTER</u>	<u>RECEIVER</u>	<u>USAGE</u>
			Channel 12.
74	156.725	156.725	Port Operations (Inter-ship and ship- to-ship). Same as Channel 12.
77	156.875	156.875	Commercial (Inter- ship). Same as Channel 7A except limited to intership communications.
78A	156.925	156.925	Non-Commercial (Inter- ship and ship to coast). Same as Channel 68.
79A	157.975	157.975	Commercial (Inter- ship and ship-to- ship). Same as Channel 7A.
80A	157.025	157.025	Commercial (Inter- ship and ship-to- coast). Same as Channel 7A.
81A	157.075	157.075	U.S. Government (USCG) only.
82A	157.125	157.125	U.S. Government (USCG) only.
83A	157.175	157.175	U.S. Government (USCG) only.

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U.S. NATIONAL MARITIME MOBILE VHF,
156-162 MHz CHANNELIZATION PLAN(FREQ'S IN MHz)
SHIP)

<u>CHANNEL NUMBER</u>	<u>TRANSMITTER</u>	<u>RECEIVER</u>	<u>USAGE</u>
84	157.225	161.825	Public Correspondence (ship-to-coast). Same as Channel 24.
85	157.275	161.875	Public Correspondence (ship-to-coast). Same as Channel 24.
86	157.275	161.875	Public Correspondence (ship-to-coast). Same as Channel 24.
87	157.275	161.975	Public Correspondence (Ship-to-coast). Same as Channel 24.
88A	157.425	157.425	Commercial (Intership). Same as Channel 7A except limited to intership communications and between commercial fishing vessels and associated aircraft while engaged in commercial fishing.

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INTERNATIONAL MARITIME MOBILE VHF,
156-162 MHz CHANNELIZATION PLAN

Channel design- nators	Transmitting frequencies (MHz)		Inter- ship	Port Operations		Ship movement		Public Corres- pon- dence
	Ship stations	Coast stations		Single fre- quency	Two fre- quency	Single fre- quency	Two fre- quency	
60	156.025	160.625			17		9	25
01	156.050	160.650			10		15	8
61	156.075	160.675			23		3	19
02	156.100	160.700			8		17	10
62	156.125	160.725			20		6	22
03	156.150	160.750			9		16	9
63	156.175	160.775			18		8	24
04	156.200	160.800			11		14	7
64	156.225	160.825			22		4	20
05	156.250	160.850			6		19	12
65	156.275	160.875			21		5	21
06	156.300		1					
66	156.325	160.925			19		7	23
07	156.350	160.950			7		18	11
67	156.375	156.375	10	10		9		
08	156.400		2					
68	156.425	156.425		6		2		
09	156.450	156.450	5	5		12		
69	156.475	156.475	9	11		4		
10	156.500	156.500	3	9		10		
70	156.525		6					
11	156.550	156.550		3		1		
71	156.575	156.575		7		6		
12	156.600	156.600		1		3		
72	156.625			7				
13	156.650	156.650	4	4		5		
73	156.675	156.675	8	12		11		
14	156.700	156.700		2		7		
74	156.725	156.725		8		8		
15	156.750	156.750	12	14				
75		Guard-band	156.7625-156.7875	156.7875				

INTERNATIONAL MARITIME MOBILE VHF,
156-162 MHz CHANNELIZATION PLAN

Channel design- nators	Transmitting frequencies (MHz)		Inter- ship	Port Operations		Ship movement		Public Corres- pon- dence
	Ship stations	Coast stations		Single fre- quency	Two fre- quency	Single fre- quency	Two fre- quency	
16	156.800	156.800	DISTRHS SAFETY AND CALLING band 156.8125-156.8375 MHz 13 11	13	3 12 4 14 1 16 5		22 13 21 1 23 2 20	27
76		Guard band						
17	156.850	156.850						
77	156.875	156.875						
18	156.900	156.900						
78	156.925	161.500						
19	156.950	161.525						
79	156.975	161.550						
20	157.000	161.575						
80	157.025	161.600						
21	157.050	161.625	11	16	2			
		156.050						
		or						
		161.650						
81	157.075	161.675						
22	157.100	161.700						
82	157.125	161.725						
23	157.150	156.150						
		or						
		161.750						
83	157.175	156.175	24				12	16 4 13 3 17 1 15 2 14 6 18
		or						
		161.775						
24	157.200	161.800						
84	157.225	161.825						
25	157.250	161.850						
85	157.275	161.875						
26	157.300	161.900						
86	157.325	161.925						
27	157.350	161.950						
87	157.375	161.975	162.000	162.025				
		162.000						
28	157.400	162.025						
		162.025						

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NOTES REFERRING TO THE INTERNATIONAL TABLE

1. The figures in the column headed "Intership" indicate the normal sequence in which channels should be taken into use by mobile stations.

2. The figures in the columns headed "Port operations", "Ship movement" and "Public correspondence" indicate the normal sequence in which channels should be taken into use by each coast station. However, in some cases, it may be necessary to omit channels in order to avoid harmful interference between the services of neighboring coast stations.